

DUOPHONIC SYNTHESIZER

ARP ODYSSEY

SERVICE MANUAL



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KORG

Issued: Apr. 22, 2015

Ver. 1.0

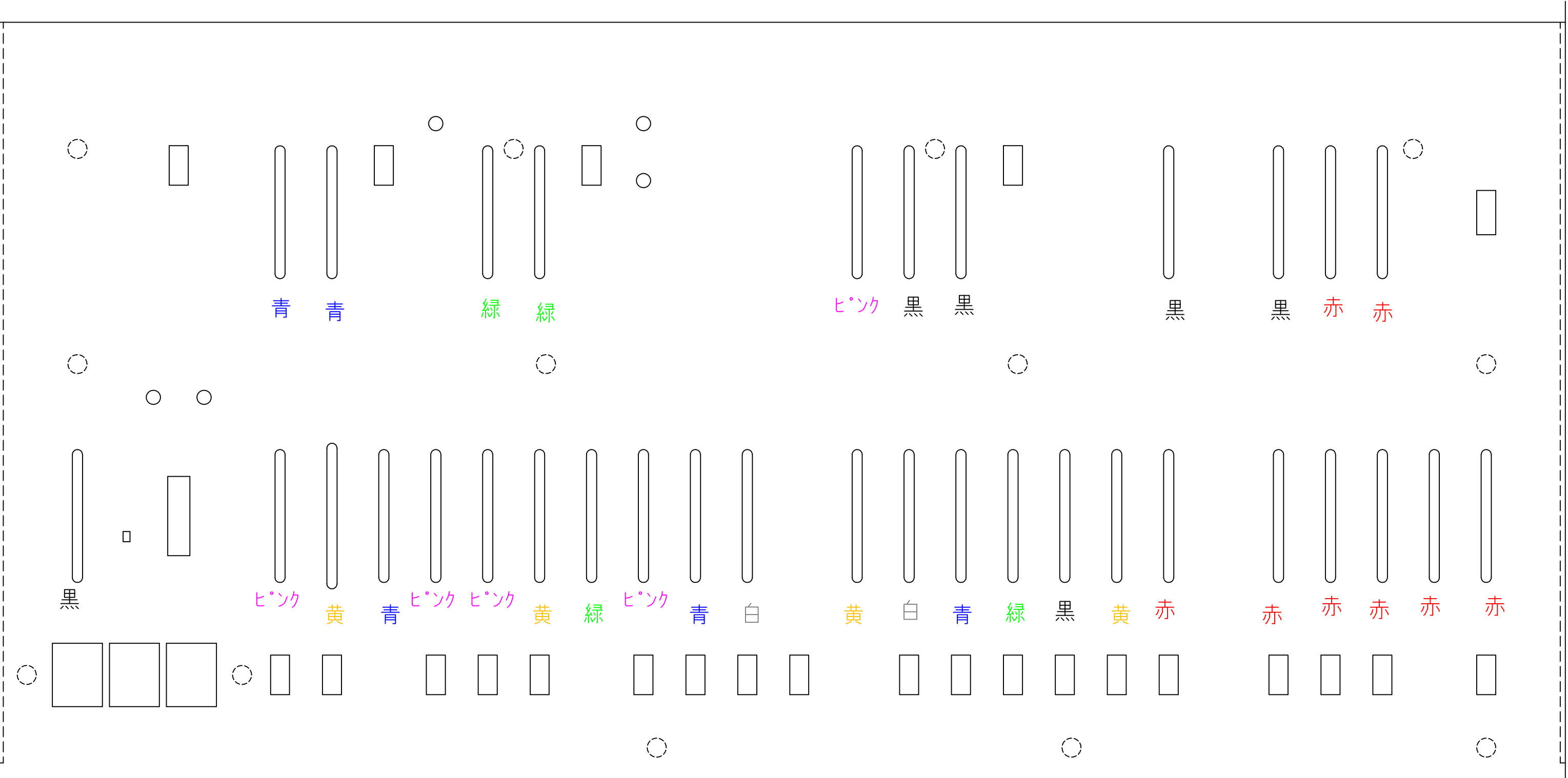
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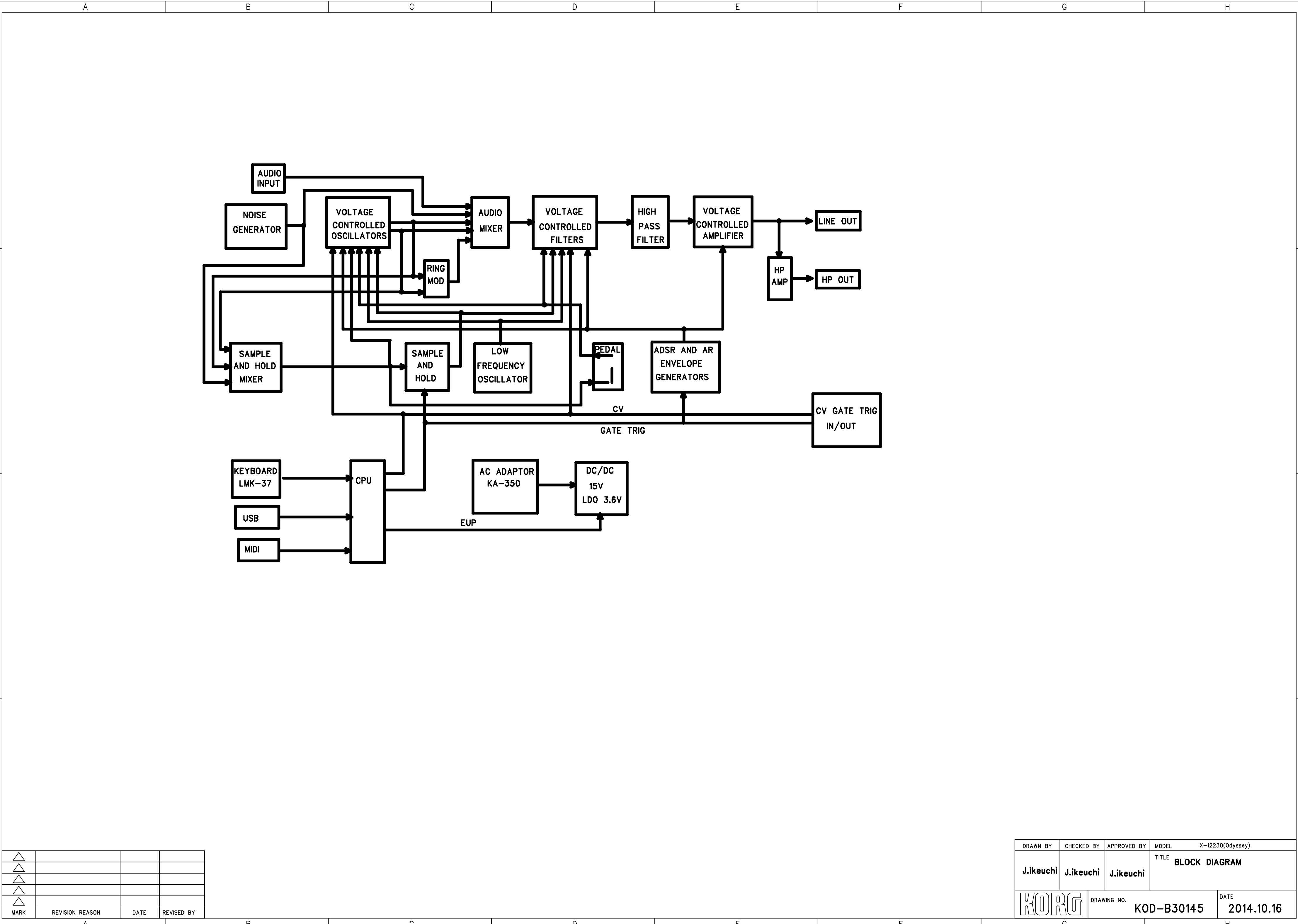


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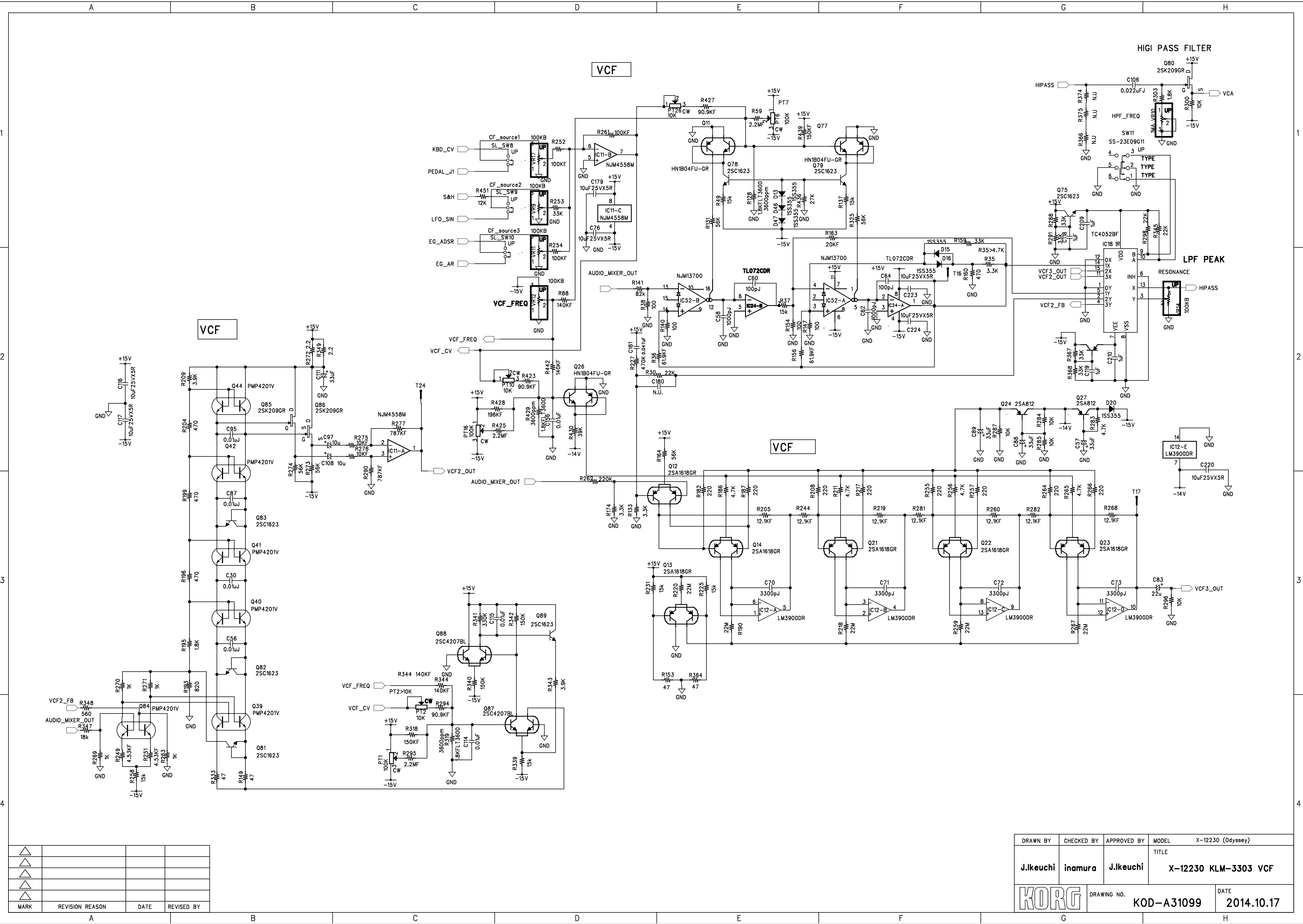
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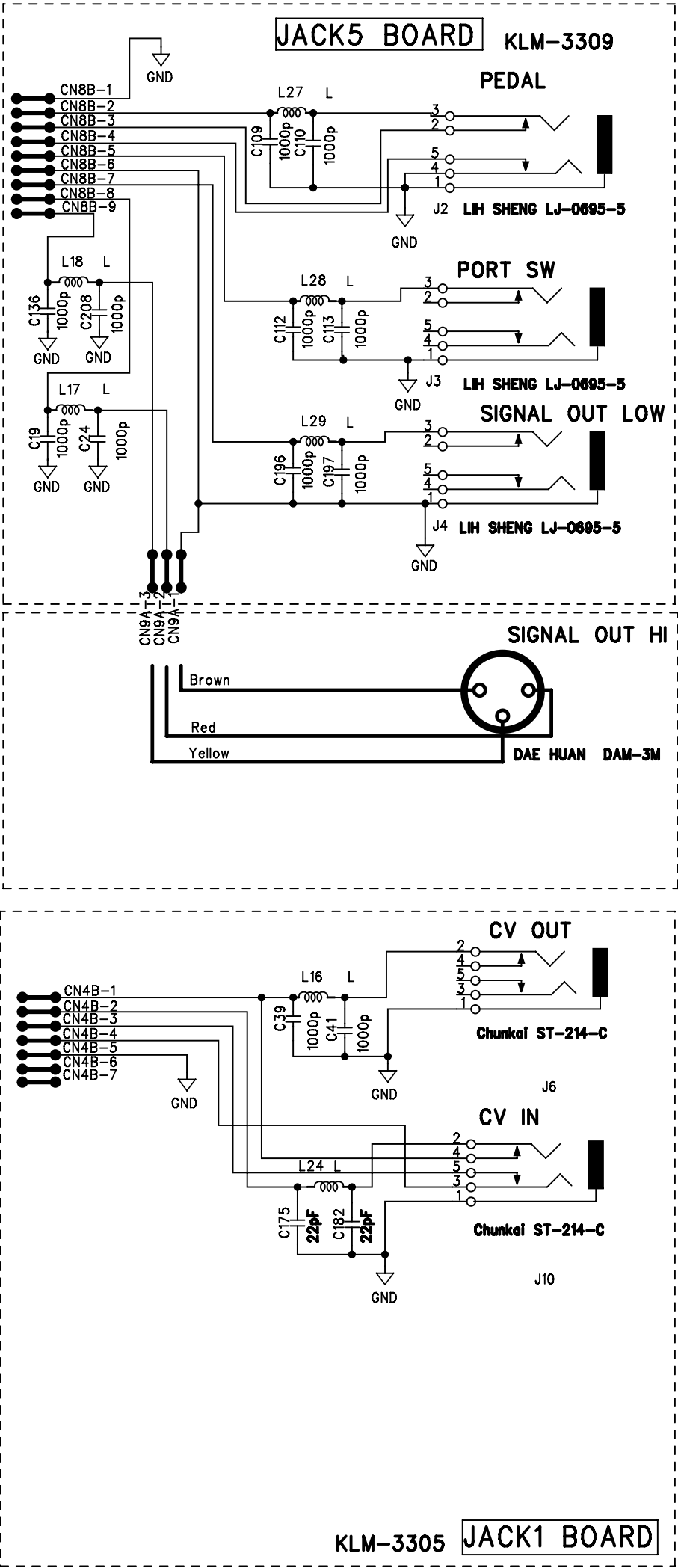
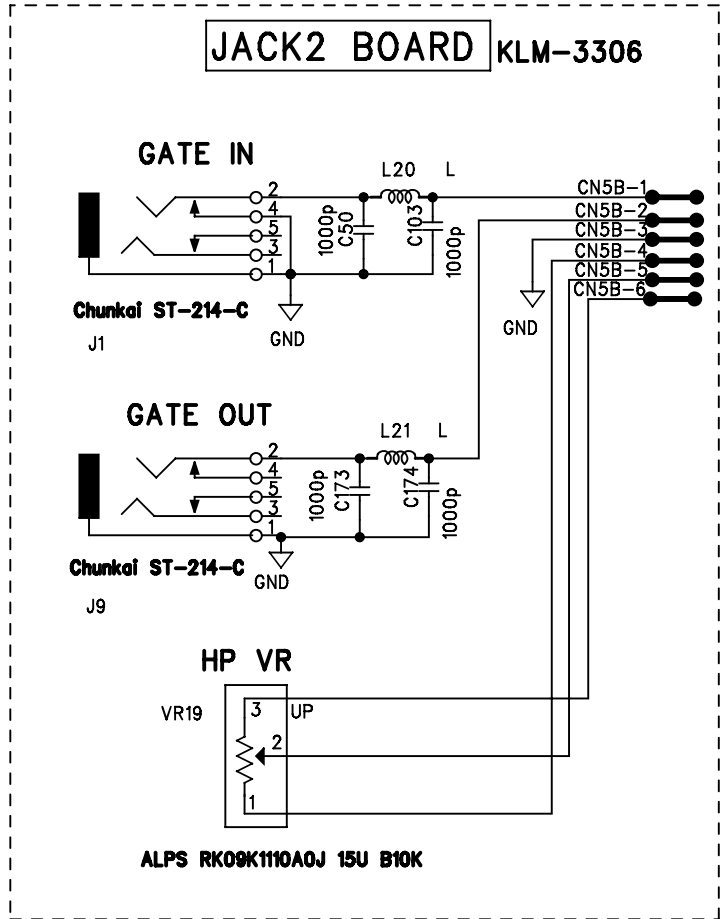
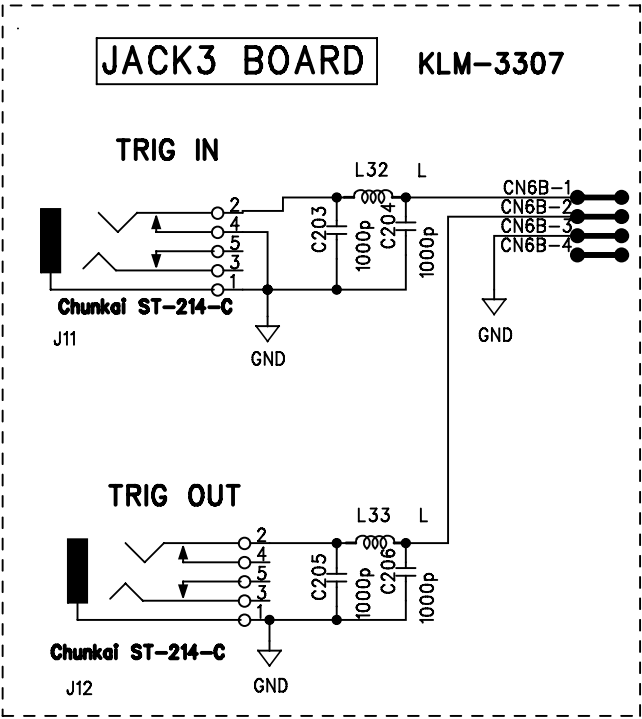
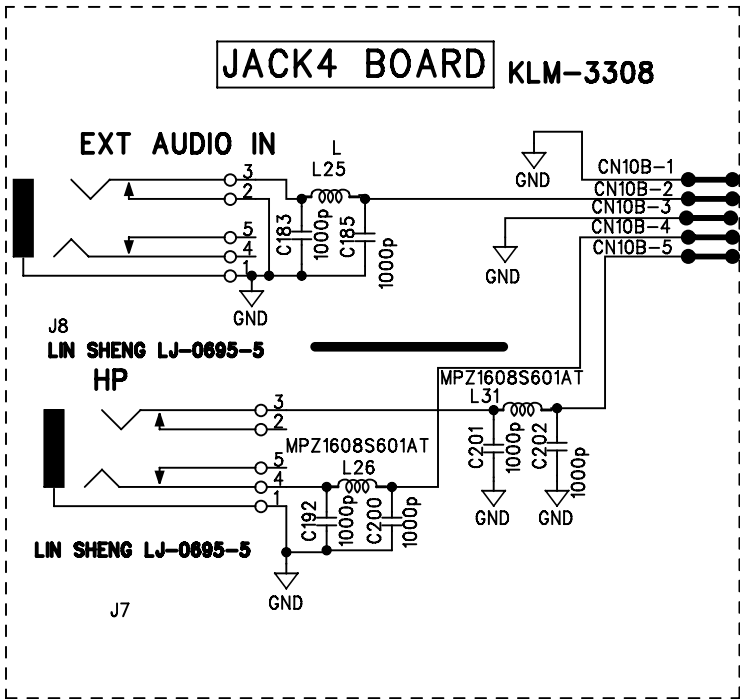
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MARK	REVISION REASON	DATE	REVISED BY

DRAWN BY	CHECKED BY	APPROVED BY	MODEL	X-12230(Odyssey)	
J.ikeuchi	J.ikeuchi	J.ikeuchi	TITLE	BLOCK DIAGRAM	
KORG			DRAWING NO.	KOD-B3014-5	DATE 2014.10.16

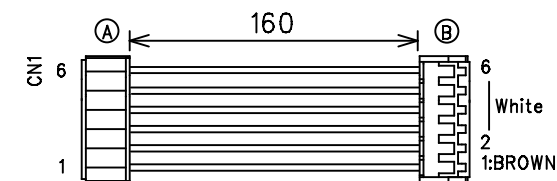


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MARK	REVISION REASON	DATE	REVISED BY

DRAWN BY	CHECKED BY	APPROVED BY	MODEL	X-12230 (Odyssey)
J.i.keuchi	inamura	J.i.keuchi	TITLE	X-12230 KML-3303 3305,6,7,8,9
KORG		DRAWING NO.	KOD-A31120	DATE 2014.10.17

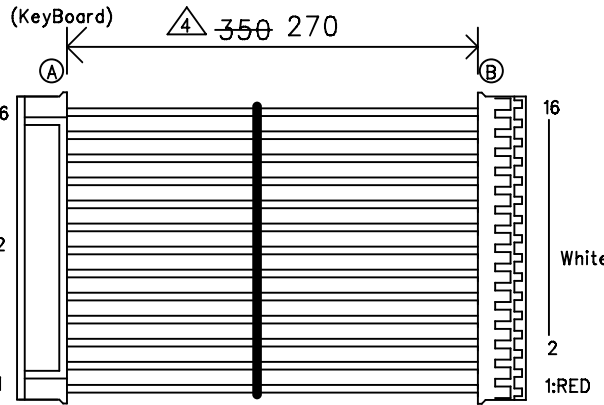


HNS-4456



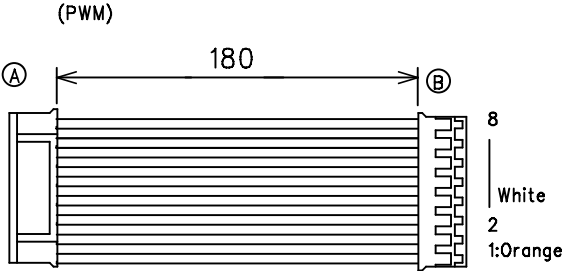
WIRE TYPE		UL-1007 CSA TR-64	
WIDTH		AWG 22	
	HOUSING	TERMINAL	MAKER
(A)	A2502H02-6P	A2502TOP-2	JSY
(B)	A2502H02-6P	A2502TOP-2	JSY

HNS-4457



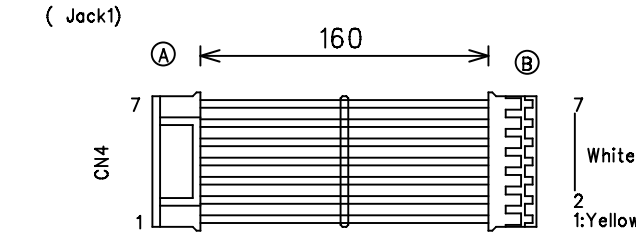
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WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-16P	A2001TOP-2L	JSY
(B)	A2001H02-16P	A2001TOP-2L	JSY

HNS-4458



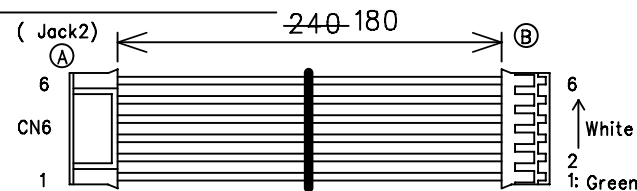
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WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-8P	A2001TOP-2L	JSY
(B)	A2001H02-8P	A2001TOP-2L	JSY

HNS-4459



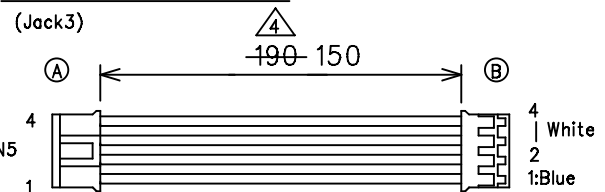
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WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
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(B)	A2001H02-7P	A2001TOP-2L	JSY

HNS-4460



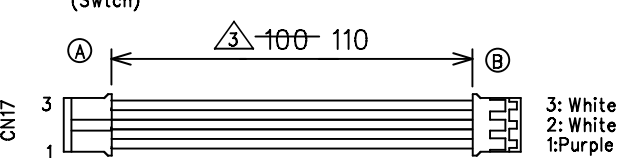
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WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-6P	A2001TOP-2L	JSY
(B)	A2001H02-6P	A2001TOP-2L	JSY

HNS-4461



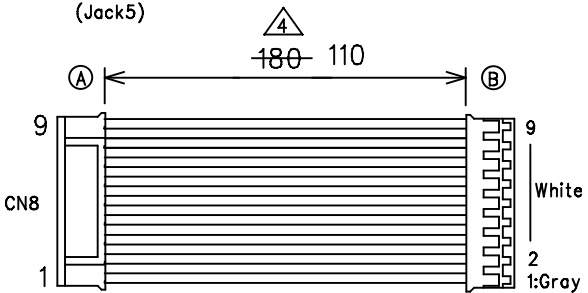
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WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-4P	A2001TOP-2L	JSY
(B)	A2001H02-4P	A2001TOP-2L	JSY

HNS-4462



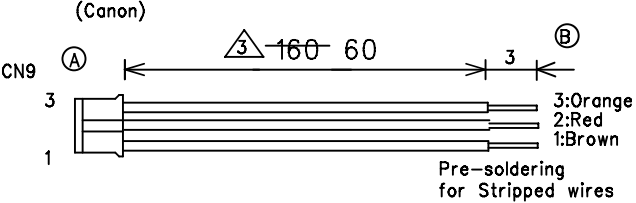
WIRE TYPE		UL-1007 CSA TR-64	
WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-3P	A2001TOP-2L	JSY
(B)	A2001H02-3P	A2001TOP-2L	JSY

HNS-4463



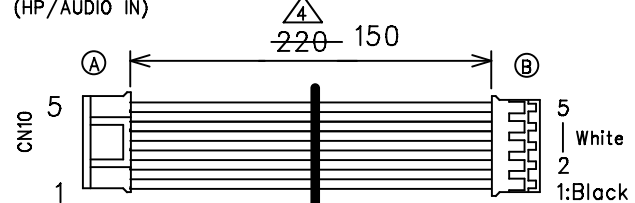
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WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-9P	A2001TOP-2L	JSY
(B)	A2001H02-9P	A2001TOP-2L	JSY

HNS-4464



WIRE TYPE		UL-1007 CSA TR-64	
WIDTH		AWG 28 >> AWG24	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-3P	A2001TOP-2L	JSY
(B)			

HNS-4465



WIRE TYPE		UL-1007 CSA TR-64	
WIDTH		AWG 28	
	HOUSING	TERMINAL	MAKER
(A)	A2001H02-10P	A2001TOP-2L	JSY
(B)	A2001H02-10P	A2001TOP-2L	JSY

M P


- *1 Wire/Tie/Heatshinkable Tune should be approved by UL/CSA
- *2 Tie without poistion idication should be tied by making wire divide equally.
- *3 RoHS compatible

Local Wire is acceptable.
But the above safety should be necessary.
* (Tolerance) ± 10 [mm]
* (Unit) [mm]

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△	Length change	14/05/22	inamura
△	Length change	14/01/29	inamura
△	HNS-4464 AWG28>>24	14/01/29	inamura
△	HNS-4459 5P>>7P	14/01/29	inamura
MARK	REVISION REASON	DATE	REVISED BY

DESIGNED BY	CHECKED BY	APPROVED BY	MODEL (X-12230)Odyssey
inamura	terawaki	ikeuchi	TITLE DESIGN for HARNESS
KORG		DRAWING NO. KOD-O-40537	DATE '14.05.22.

KORG ARP-Odyssey Parts List

 : SAFETY CRITICAL COMPONENT.
Assem=Assembly view item number

Code	Category	Part Name	Description	Remark	QTY		
					ODYSEY	ODYSEY-1	ODYSEY-1-2
510300512009	POWER MOS FET	2SK209GR	KLM-3303,10	[KLM-3303]Q6-7 Q20 Q28-29 Q51 Q57-58 Q80 Q85-86	11	11	11
510312513012	LED	TOL-30PSRADB30-28(D)	KLM-3303,10	[KLM-3303]LED1-3	3	3	3
510320511008	OPAMP	NJM4556AM-TE1-#ZZZB (S)	KLM-3303,10	[KLM-3303]IC40	1	1	1
510320511018	OPAMP	NJM4558M (S)	KLM-3303,10	[KLM-3303]IC4 IC6 IC8 IC11 IC13-15 IC21 IC30 IC32	10	10	10
510320511049	OPAMP	NJM13700M-TE1-#ZZZB(S)	KLM-3303,10	[KLM-3303]IC29	1	1	1
510320516163	OPAMP	TL071CDR	KLM-3303,10	[KLM-3303]IC5	1	1	1
510320516164	OPAMP	TL072CDR	KLM-3303,10	[KLM-3303]IC17 IC24	2	2	2
510324021160	OPAMP	NE5532DR (TS)	KLM-3303,10	[KLM-3303]IC16	1	1	1
510320516204	OPAMP	LM3900DR	KLM-3303,10	[KLM-3303]IC12	1	1	1
510374534001	PRESSURE SENSOR	HFD-500S	KLM-3303,10	[KLM-3303]SENS4-6	3	3	3
510374522036	PUSH SW	809-H(Push-on)	KLM-3303,10	[KLM-3303]SW25	1	1	1
510374522037	SLIDE SW	BSL-SS22K32-G11-G	KLM-3303,10	[KLM-3303]SL_SW1-10 SL_SW12-14 SL_SW15-24	23	23	23
510374522038	SLIDE SW	BSL-SS23E09-G11-G	KLM-3303,10	[KLM-3303]SW11	1	1	1
510360520065	SLIDE VR	RS45111AAA06(100KA)	KLM-3303,10	[KLM-3303]VR3-5 VR13 VR23 VR30 VR36-39 VR44	11	11	11
510360520066	SLIDE VR	RS45111AAA05(100KB)	KLM-3303,10	[KLM-3303]VR1 VR6-9 VR11-12 VR14-17 VR20 VR25 VR40 VR42	15	15	15
510360520067	SLIDE VR	RS45111AAA07(1MA)	KLM-3303,10	[KLM-3303]VR2 VR10 VR18 VR22 VR24 VR26 VR31 VR45	8	8	8
510374535501	TOGGLE SW	M2T-13AKB1	KLM-3303,10	[KLM-3303]S1	1	1	1
510300512013	TRANSISTOR	HN1B04FU-GR	KLM-3303,10	[KLM-3303]Q2 Q11 Q18 Q26 Q77	5	5	5
510320523502	TRANSISTOR	PMP4201V	KLM-3303,10	[KLM-3303]Q39-42 Q44 Q84	6	6	6
500350023410	TRIMER VR	VG067TL1B104	KLM-3303,10	[KLM-3303]PT1 PT5-6 PT8 PT14 PT16 PT20 PT22 PT24	9	9	9
500350023410	TRIMER VR	VG067TL1B104	KLM-3303,10	[KLM-3303]PT1 PT5-6 PT8 PT14 PT16 PT20 PT22 PT24	9	9	9
510360527001	TRIMER VR	VG067TL1B103	KLM-3303,10	[KLM-3303]PT2 PT4 PT7 PT10 PT12-13 PT17 PT21 PT26	9	9	9
500350023310	TRIMER VR	VG067TL1B103	KLM-3303,10	[KLM-3303]PT2 PT4 PT7 PT10 PT12-13 PT17 PT21 PT26	9	9	9
500350023210	TRIMER VR	VG067TL1B102	KLM-3303,10	[KLM-3303]PT25	1	1	1
500350023210	TRIMER VR	VG067TL1B102	KLM-3303,10	[KLM-3303]PT25	1	1	1
500350023350	TRIMER VR	VG067TL1B503	KLM-3303,10	[KLM-3303]PT15 PT19	2	2	2
500350023350	TRIMER VR	VG067TL1B503	KLM-3303,10	[KLM-3303]PT15 PT19	2	2	2
510C91913303	CIRCUIT ASS'Y BOARD	(ODYSEY)KLM-3303/10	KLM-3303,10				
510300511035	POWER MOS FET	RRQ030P03TR	KLM-3304~09	[KLM-3304]F2	1	1	1
510310520505	SCHOTTKY DIODE	RSX301LA-30-TR	KLM-3304~09	[KLM-3304]D1 D57-58	3	3	3
510320511018	OPAMP	NJM4558M (S)	KLM-3304~09	[KLM-3304]IC9 IC23	2	2	2
510320513519	REGULATOR IC	R1154H036B-T1-FE	KLM-3304~09	[KLM-3304]IC1	1	1	1
510320514030	RESET IC	BU4227G-TR	KLM-3304~09	[KLM-3304]IC2	1	1	1
510320516171	DC-DC Converter	TPS54240DGQR	KLM-3304~09	[KLM-3304]IC47	1	1	1
510320516172	REGULATOR IC	TPS7A3401DGNR	KLM-3304~09	[KLM-3304]IC53	1	1	1
510330510002	PHOTO COUPLER	TLP2368(TLMIDI,E(0	KLM-3304~09	[KLM-3304]PC1	1	1	1
510335522025	CRYSTAL	RSD-24000F203000	KLM-3304~09	[KLM-3304]X1	1	1	1
510360520038	ROTARY VR	RK09K1110A0J	KLM-3304~09	[KLM-3306]VR19	1	1	1
510374510004	SW	PS-22F03 (NON-LOCKED)	KLM-3304~09	[KLM-3304]SL_SW11	1	1	1
510450520506	DIN JACK	DS-05-02(DIN5P W/OUT SW) (D)	KLM-3304~09	[KLM-3304]IMD1	1	1	1
510450524509	DC JACK	LD-0214	KLM-3304~09	[KLM-3304]J35	1	1	1
510474527501	USB CONNECTOR	QT-6301-004	KLM-3304~09	[KLM-3304]USB2	1	1	1
510450524522	PHONE JACK	LJ-0695-5	KLM-3304~09	[KLM-3308]J7 J8 [KLM-3309]J2 J3 J4	5	5	5
510450520041	PHONE JACK	ST-214-C-06A	KLM-3304~09	[KLM-3306]J1 J9 [KLM-3305]J6 J10[KLM-3307]J11 J12	6	6	6
510360527002	TRIMER VR	VG067TL1B104	KLM-3304~09	[KLM-3304]PT3 PT28	2	2	2
500350023410	TRIMER VR	VG067TL1B104	KLM-3304~09	[KLM-3304]PT3 PT28	2	2	2
500350023210	TRIMER VR	VG067TL1B102	KLM-3304~09	[KLM-3304]PT9 PT23	2	2	2
500350023210	TRIMER VR	VG067TL1B102	KLM-3304~09	[KLM-3304]PT9 PT23	2	2	2
500350023220	TRIMER VR	VG067TL1B202	KLM-3304~09	[KLM-3304]PT18 PT27	2	2	2
500350023220	TRIMER VR	VG067TL1B202	KLM-3304~09	[KLM-3304]PT18 PT27	2	2	2
510C91913304	CIRCUIT ASS'Y BOARD	(ODYSEY)KLM-3304/5/6/7/8/9	KLM-3304~09				
510470524739	Harness	HNS-4456	Other Electric		1	1	1
510470524740	Harness	HNS-4457	Other Electric		1	1	1
510470524741	Harness	HNS-4458	Other Electric		1	1	1
510470524742	Harness	HNS-4459	Other Electric		1	1	1
510470524743	Harness	HNS-4460	Other Electric		1	1	1
510470524744	Harness	HNS-4461	Other Electric		1	1	1
510470524745	Harness	HNS-4462	Other Electric		1	1	1
510470524746	Harness	HNS-4463	Other Electric		1	1	1
510470524747	Harness	HNS-4464	Other Electric		1	1	1
510470524748	Harness	HNS-4465	Other Electric		1	1	1
510C90583176	KEYBOARD UNIT	KEYBOARD UNIT LMK-37	Other Electric		1	1	1
510405540029	AC ADAPTER	KA350(EUP II:@3A-163WP09-025)	Other Electric		1	1	1
510450534501	XLR JACK	DAM-3M	Other Electric		1	1	1
510470524737	AUDIO CABLE	PATCH CORD 3.5 L=250 1PCS	Other Electric		1	1	1
510470524738	AUDIO CABLE	PATCH CORD 6.3 L=300 1PCS	Other Electric		1	1	1
510540502501	AC PLUG	@060-161WP00-004(PSE/UL PLUG)	ACC	100JP, 120EX	1	1	1
510540502502	AC PLUG	@060-161WP00-002(EU PLUG)	ACC	230GE			
510540502503	AC PLUG	@060-161WP00-009(UK PLUG)	ACC	230UK			
510540502504	AC PLUG	@060-161WP00-003(SAA PLUG)	ACC	240AU			
510640508127		X12230 PANEL C30942-1	Mechanical		1		
510640508128		X14200 PANEL C30942-2	Mechanical			1	
510640508129		X14201 PANEL C30942-3	Mechanical				1
510646500159		X12230 BOTTOM E30715	Mechanical		1	1	1
510640508140		X-12230 SW ANGLE 2 KOC-C41862	Mechanical		1	1	1

Code	Category	Part Name	Description	Remark	QTY		
					ODYSSEY	ODYSSEY-1	ODYSSEY-2
510646508585		X12230 PPC RUBBER E40922	Mechanical		1	1	1
510646502458		X-12230 LEVER SW KNOB E40949	Mechanical		1	1	1
510646503011		X12230 SVR A-KNOB BK E40927-1	Mechanical		6		
510646503012		X12230 SVR A-KNOB RD E40927-2	Mechanical		8		
510646503013		X12230 SVR A-KNOB WH E40927-3	Mechanical		2		
510646503014		X12230 SVR A-KNOB BL E40927-4	Mechanical		5		
510646503015		X12230 SVR A-KNOB GR E40927-5	Mechanical		4		
510646503016		X12230 SVR A-KNOB YE E40927-6	Mechanical		4		
510646503017		X12230 SVR A-KNOB PI E40927-7	Mechanical		5		
510646502445		X12230 SVR B-KNOB BK E40920-1	Mechanical			6	6
510646502446		X12230 SVR B-KNOB RD E40920-2	Mechanical			8	8
510646502447		X12230 SVR B-KNOB WH E40920-3	Mechanical			2	2
510646502448		X12230 SVR B-KNOB BL E40920-4	Mechanical			5	5
510646502449		X12230 SVR B-KNOB GR E40920-5	Mechanical			4	4
510646502450		X12230 SVR B-KNOB YE E40920-6	Mechanical			4	4
510646502451		X12230 SVR B-KNOB PI E401920-7	Mechanical				
510646502451		X12230 SVR B-KNOB PI E40920-7	Mechanical			5	5
510646502452		X12230 POWER INDICATOR E40921	Mechanical		1	1	1
510640508134		X12230 ROUND PLATE C41835	Mechanical		3	3	3
510500506501		X-5550 LEG KCC-E40011	Mechanical		4	4	4
510802500640		X-11231 BUSH RUBBER KOC-E40903	Mechanical		5	5	5
510646502314		X-09520 CORDHOOK E40331	Mechanical		1	1	1
510646502163		X-6140 PSW KNOB KOC-E40774	Mechanical		1	1	1